Application No. 09/830,708
Filed: April 30, 2001
TC Art Unit: 1651
Confirmation No.: 3616

AMENDMENT TO THE CLAIMS

1. (Currently Amended) A process for analyzing a specimen of biological material in a biochemical or immunological test for an analyte, comprising the steps of:

subjecting said specimen to treatment that develops a color correlating to the amount of analyte in the specimen;

spectrophotometrically measuring hue angle ~~or~~ with or without chroma of the developed color to obtain a value thereof; and

~~analyzing~~ electronically processing the value obtained from the measurement of the hue angle ~~or~~ with or without chroma to determine the presence or concentration of said analyte in said specimen.

2. (Previously Presented) The process of to claim 1, wherein said specimen of biological material comprises liquid or semi-solid body secretions collected from a patient to be diagnosed for evidence of abnormalities;

said analyte to be assayed consists essentially of cancer indicating markers in said specimen; and

the measurement of said hue angle or chroma is used to classify the specimen as normal or abnormal according to the measurement of the hue angle or chroma so obtained.

3. (Previously Presented) The process of claim 2, wherein the specimen is lung mucus, throat mucus, cervical mucus, colorectal mucus or seminal fluid.

4. (Previously Presented) The process of claim 2, wherein said specimen is deposited on a white substrate, and wherein said

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process further comprises developing color from said sample by enzyme reaction or Schiff's reaction.

5. (Previously Presented) The process of claim 1, wherein said specimen of biological material comprises a colon-contacting semi-solid sample collected from a patient to be diagnosed for evidence of abnormalities;

said analyte to be assayed consists essentially of carbohydrate markers indicative of abnormalities;

said step of subjecting said specimen to a treatment comprises depositing the specimen on a white substrate, staining the specimen on the substrate with galactose oxidase and color developing the stained specimen with Schiff's reagent; and

the measurement of said hue angle or chroma is used to classify the specimen as normal or abnormal according to the measurement of the hue angle or chroma so obtained.

6. (Previously Presented) The process of claim 1, wherein said specimen of biological material comprises a colon-contacting semi-solid sample collected from a patient to be diagnosed for evidence of abnormalities;

said analyte to be assayed consists essentially of markers indicative of the presence of abnormalities;

said step of subjecting said specimen to a treatment comprises depositing the specimen on a white substrate and developing color from the specimen by enzyme reaction; and

the measurement of said hue angle or chroma is used to classify the specimen as normal or abnormal according to the measurement of the hue angle or chroma so obtained.

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7. (Cancelled)

8. (Previously Presented) The process of claim 4, wherein said substrate is non-cellulosic.

9. (Previously Presented) The process of claim 4, wherein said substrate is glass fibre.

10. (Previously Presented) The process of claim 4, wherein said substrate is white.

11. (Previously Presented) The process of claim 5, wherein said specimen is a rectal mucus sample.

12. (Previously Presented) A system for analysis of liquid or semi-solid body secretion sample obtained from a human patient to diagnose for the presence or absence of abnormalities in said patient by determination of a defined color characteristic developed in the sample, said color characteristic being selected from the group consisting of hue angle, chroma, saturation and lightness, said system comprising:

a white, non-cellulosic substrate with porous pebbled surface, for receiving and holding the sample during development;

a source of galactose oxidase, adapted to apply galactose oxidase to the substrate surface for selective enzymatic oxidation of the sample thereon;

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a source of Schiff's reagent, adapted to apply said reagent to said oxidized sample on said substrate for development of an analyzable color therein;

means for presenting the color-developed sample to a portable reflectance spectrophotometer, said spectrophotometer being capable of determining and reporting a defined color characteristic of said samples on said substrate, said color characteristic being selected from the group consisting of hue angle, chroma, saturation and lightness;

a calibration plaque for use with said spectrophotometer; and

a computer programmed to analyze the results.

13. (Previously Presented) A kit for analysis a of colon-contacting semi-solid sample obtained from a human patient to diagnose for the presence or absence of rectal abnormalities in the patient, said kit comprising;

a white, non-cellulosic substrate for receiving said sample;

a source of Schiff's reagent; and

a portable reflectance spectrophotometer said spectrophotometer being capable of determining and reporting at least one defined color characteristic of said sample on said substrate, said color characteristic selected from the group consisting of hue angle, chroma, saturation and lightness.

14. (Previously Presented) The kit of claim 13, wherein the substrate is glass fibre.

15. - 22. (Cancelled)

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